

## POWER MANAGEMENT UNIT FOR USE IN PORTABLE APPLICATIONS

### ABSTRACT

A voltage regulator includes a first stage capable of receiving a reference voltage and capable of having a first current flowing through the first stage. A second stage is capable of having a second current flowing through the second stage. A third stage is capable of outputting an output voltage and capable of having a third current flowing through the second stage. The first, second and third currents are proportional to each other throughout a range of operation of the voltage regulator between substantially zero output current and maximum output current. The first stage drives the second stage as a low input impedance load.